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ABSTRACT

A study was conducted to identify adult basic education (ABE) teachers' perceptions of the positive and negative results of formal testing and to obtain descriptive information concerning typical testing practices in U.S. ABE programs. One thousand twenty surveys, in packets of 20 each, were mailed to 50 ABE state directors and the District of Columbia director of ABE. Eighty-one percent of the directors indicated they would forward the surveys to programs within their states and the district. Of the 840 questionnaires forwarded and presumably disseminated to teachers through local program coordinators, 51 percent of the questionnaires were completed. The respondents can be characterized as predominantly female (83.3 percent), college-educated (93.9 percent), and teacher-certified (87.4 percent). Their average age was 45.08 years, they had taught ABE an average of 8.32 years, and they spent an average of 11.94 hours in test-related activities each month. The following were among the findings reported: (1) the teachers perceived testing as most effective for functions that relate directly to initial student placement, selection of appropriate instructional materials, and instructional planning; (2) the respondents believed that the use of formal testing entails costs for students, programs, and instruction, due to student anxiety and problems of self-esteem and motivation; (3) formal testing was most often used by respondents for the purpose of starting students at the right level; and (4) 78 percent of respondents rated their programs' use of formal testing as effective. (CML)

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SUMMARY RESEARCH REPORT: TESTING IN ADULT BASIC EDUCATION

by

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SUMMARY RESEARCH REPORT: TESTING IN ADULT BASIC EDUCATION

Overview

This study was conducted to learn more about formal testing in Adult Basic Education (ABE). Using content derived from interviews with ABE instructors and administrators, the researchers developed and disseminated a three-part survey to ABE teachers. The following report summarizes and discusses major findings.

Rationale and Background of the Study

North Americans have become accustomed to the widespread use of testing in educational programs. Test results are used frequently to guide or to document educational decisions, including identification of students with above- or below-average skill levels, placement of students into groups or classes, and certification of course or program completion. The power and prestige of test results are illustrated by the widely publicized debate concerning the decline in basic skills acquisition and the attendant arguments concerning educational causes and remedies.

Many research studies have been conducted regarding testing in the public schools. Empirically based information concerning testing in adult literacy programs, however, is not readily available. Therefore, this research had two objectives: (a) to identify adult basic education teachers' perceptions of the positive effects and negative results of formal testing and (b) to obtain descriptive information concerning typical testing practices in ABE programs.

Sample Description

A total of 1020 surveys, in packets of 20 each, were mailed to the 51 ABE state directors (the sample included the District of Columbia). Responses from directors were extremely positive; 81% ($n = 42$) indicated that they would participate by forwarding packets of surveys to programs in their states. Of the 840 surveys forwarded and presumably disseminated to teachers through local program coordinators, 51% of the surveys ($n = 427$) were completed and returned to the researcher.

The resulting sample can be characterized as predominantly female (83.3%), college-educated (93.9%), and teacher-certified (87.4%). Teachers ranged in age from 23 to 75 years old (Mean = 45.08), had taught ABE for .5 to 30 years (Mean = 8.32), and spent from 0 to 100 hours per month in test-related activities (Mean = 11.94). The sample was distributed geographically as follows: 29.7% of the respondents came from North Central states, 19.8% came from Western states, 19.1% came from South Central states, 17.9% came from Northeastern states, and 13.5% came from South Atlantic states.

Findings

Teachers' Perceptions of the Positive Effects of Testing

The data indicate that this sample of ABE teachers perceive testing as most effective for functions that relate directly to initial student placement, selection of appropriate instructional materials, and instructional planning (see Table 1 for ranked item means). In other words, respondents perceive formal testing as a highly effective measure of gross ability or skill level. Although teachers, on the average, rated items in this section of the survey positively, their responses varied widely. In addition, large proportions of respondents used the response choices that could be interpreted as "neutral" rather than as unequivocally positive or negative (i.e., +1, 0, and -1 on a scale ranging from -3 to +3).

Factor analysis was applied to this section of the survey. The goal of factor analysis is to enhance parsimony by identifying a small number of factors that adequately represent the information obtained from the many individual, item-level findings. Two factors were identified among items measuring the effectiveness of testing: "Direct Instructional Benefits" and "Extra-Instructional Benefits." The first factor relates directly to instruction and represents the use of formal testing to convey information and increase knowledge about student skill levels for initial placement and selection of instructional materials. The second factor illustrates the use of formal testing as an instructional support activity, e.g., using test information to predict future achievement and to document current progress. The first factor represents a dimension of formal testing that was perceived to be considerably more effective than the second.

Background information variables, for the most part, did not relate to teachers' perceptions of formal testing. The only statistically significant relationships found were between (a) perceptions of effectiveness and hours spent in test-related activities and (b) perceptions of effectiveness and age. These positive relationships, however, were too weak to be more than suggestive.

Teachers' Perceptions of Problems Resulting From Formal Testing

Data show that respondents believe that the use of formal testing entails costs for students, programs, and instruction. In particular, teachers are concerned about problems related to student anxiety, self-esteem, participation, and motivation, as well as discrimination against students with special learning needs and those who do not use standard English (see Table 2 for ranked item means).

Factor analysis resulted in the identification of four distinct underlying dimensions of teachers' perceptions of problems resulting from formal testing: Test-Related Problems Associated with Discrimination, Test-Related Problems Associated with Student Affect, Test-Related Problems Associated with Teaching, and Test-Related Problems Associated with Program Resources. Respondents were most

concerned about two results of formal testing: (a) its discrimination against students and (b) students' affective responses to tests and testing. Loss of program resources and the effects of formal testing upon teaching were not perceived to be as highly problematic.

The only significant relationship between background variables and perceptions of problems resulting from testing was a negative correlation between perceptions of test problems and hours spent in test-related activities. This relationship, however, was too weak to be considered meaningful.

Program Practices

Data from Survey Section III, "Program Practices," were categorized under three basic themes: (a) Uses of Tests in ABE programs, (b) Specific Testing Policies and Practices, and (c) Teacher Evaluation of Testing. Only descriptive statistics (means and frequencies) were computed for data from this part of the survey. Findings are relatively straightforward and require little explanation. A few of the findings, however, merit discussion. The data from these findings are presented below, and frequency distributions for items related to specific uses of formal tests (31 - 35, 36, 39, and 43) and for the items related to specific testing policies and practices (36 - 38, 40 - 42, and 44) are presented in Table 3.

Uses of Formal Tests in ABE Programs

For this sample, formal testing is most frequently used in ABE programs for the purpose of starting students at the right level. This practice corresponds with teachers' perceptions of test effectiveness: The item with the highest mean in Section I, The Effectiveness of Formal Testing, was "for helping teachers begin instruction at the appropriate level for each student."

When asked whether or not their programs administer formal tests because scores are requested by their state departments of education, 16% of the sample answered "don't know." Similarly, 10% did not know if test scores were used to demonstrate program success. These findings imply that, even though ABE programs are often dependent upon "soft" money generated through grants, many teachers are unaware of whether or not their programs use test scores for accountability.

Specific Testing Policies and Practices

Increased accountability demands have led, in some states, to a requirement that students be retested at regular intervals. Although it is not possible to ascertain, with this data, how many states mandate regular follow-up testing as compared to how many programs actually engage in it, less than 25% of the sampled programs "always" retest students with formal testing.

Another finding of some interest was that, although 52% of the teachers responded that written permission was "always" acquired from

students before test scores were released to other agencies, 24% of the teachers did not know the answer to this item, and 14% replied that permission was "never" acquired. This finding is somewhat disturbing, as lack of specific policy regarding the release of formal test scores could have damaging consequences for students, teachers, and programs.

Also of note is the finding that 45% of the respondents reported that their programs administer tests on an individual basis, 49% reported that tests are administered on both a group and an individual basis, and only 4% reported that all testing is administered on a group basis (2% reported "neither"). Fifty-eight percent of the teachers reported that their programs have specific persons designated as test administrators, and 71% reported that their programs have specific policies and procedures for formal testing. Furthermore, in spite of the likelihood that some programs are understaffed, only 3% of the teachers reported that their programs do not give students test-related feedback. Twelve percent reported giving only scores, 65% reported discussing test-identified strengths and/or weaknesses with students, and 20% reported a combination of scores and more detailed information. These data indicate that Mezirow, Darkenwald, and Knox's (1975) contention--that ABE students are seldom given feedback unless they ask for it--may be outdated. However, their data was derived from students rather than from teachers, which might explain why resulting findings are incongruent.

These data show that the Tests of Adult Basic Education (TABE) is, without a close contender, the most frequently used test. The five highest ranking tests were as follows: the TABE was cited by 51% of the sample as the most frequently used test, the Adult Basic Education Exam was cited by 4.3%, the Wide Range Achievement Test was cited by 2.8%, the California Adult Student Assessment System was cited by 2.3%, and the California Achievement Test was cited by 2.2%.

Teacher Evaluations of Test Effectiveness

Only two items allowed teachers to evaluate a specific aspect of their actual testing practices, but these items have important implications. The majority of teachers, 78%, rated their programs' use of formal testing as being effective. Of the remaining responses, 9% answered that their program's practices were not effective, and 7% answered "do not know" (responses to this item were not included if teachers indicated that their programs did not use formal testing). However, these same respondents also rated the information from formal tests as the least useful source of assessment information and observation and interaction with students as the most useful source. One can infer that teachers perceive formal tests to be effective when measuring student abilities for the purpose of placing new students at the right level and choosing appropriate materials. It is also apparent, however, that teachers find information from informal assessment to be more useful for instruction and less threatening to students.

Discussion

Recently suggested guidelines for ABE appear in a paper entitled, "Basic Principles for Adult Education" (United States Department of Education, 1989). This paper outlines issues and needs "that must be addressed if adult education expects to increase its effectiveness" (p. 1). Included in this paper are goals directly related to the use of formal testing. Major goals include (a) to strengthen and improve existing efforts on the state level by assessing learner needs, accomplishments, and goals and (b) to improve program accountability.

One can easily imagine the use of test scores as a measure of program accountability adversely affecting ABE teachers and students, where progress may be too slow to be captured by formal testing. Typical ABE students must cope with complex life demands that compete with their time for attending classes and studying subject matter. Adult students may also carry a history of academic failure or learning problems to the new learning endeavor. The use of post-testing to measure progress must be examined in light of specific adult-related variables so that scores will be interpreted appropriately. Rather than mandating formal testing requirements across all programs, it is important that policy makers gain an increased understanding of its positive effects as well as unplanned, problematic outcomes. Teachers, for the most part, do not argue with the need for formal testing but point to certain problems and shortcomings of such testing as it is currently being practiced in ABE.

This study provides initial information concerning ABE teachers' perceptions of formal testing. Results suggest that testing is perceived to be highly effective for certain functions, particularly those related to determination of initial placement and instructional level. The data also suggest, however, that the use of formal testing in ABE is not perceived to be as effective when used for documenting program effectiveness, for formulating achievement or career expectations, or for diagnosing learning problems. In addition, teachers tend to believe that formal testing discriminates against students with special learning needs or language differences and that it leads to serious affective problems for some students. Although ABE teachers clearly have diverse perceptions of testing, the variance in their perceptions is not explained by age, years experience, or educational level. Even the time they spend in test-related activities explains only a small proportion of this variance. These results suggest that teachers' perceptions of testing are complex and that they do not adopt a simplistic "pro" or "con" attitude towards tests and testing as a result of experience or background.

Specific Implications

Mandated Retesting

Quantitative data from this study indicate that teachers value formal testing; however, statements made during interviews and comments included on surveys suggest that teachers are somewhat skeptical of mandates for frequent post-testing of all students. These comments may help to explain the wide variation in responses to the survey and the fact that, in spite of teachers' relatively positive perceptions of the effectiveness of formal testing, they also perceive testing to have problematical results. ABE teachers mentioned several problems that make it difficult to fulfill testing requirements, such as the drain on limited teaching time and the difficulty of administering post-tests due to high student attrition. Another justification for not post-testing concerns ABE student skill levels. Many students enter with low skill levels and must attend for a long period of time just to gain basic skills, and formal tests are not sensitive enough to capture the gains they may make during this time. In addition, the perceived negative consequences of testing on student affect allows one to infer that some teachers will not follow testing requirements if they appear to be unreasonable or not in the best interests of students. For example, if teachers believe they will lose a student by testing too frequently, they might make a decision to forego the test. It is essential, therefore, that policy makers communicate with ABE teachers before implementing decisions that could adversely affect practice.

Inservice Education

A large proportion of the sample, 42.5%, reported that inservice opportunities were offered "sometimes" or "never" (included in this figure is the 5% who reported that they did not know if inservice was offered). The testing literature emphasizes the necessity for sustained teacher inservice opportunities. Areas of need depicted by this literature include (a) training in test preparation, administration, and scoring, (b) test selection, (c) use of non-standardized evaluation tools and techniques, (d) application of pertinent statistical techniques for data interpretation and, (e) planning instruction in relation to test results. Testing occupies an average of almost 12 hours per month of valuable teacher time and is becoming a "high stakes" operation with serious penalties for those who fail to successfully perform. Clearly, we have a vital need for professionally designed, appropriate inservice education. This education, however, might not be confined to conventional measurement concepts. Teachers, as demonstrated by this data, perceive informal observation and interaction to be their most useful source of information about students. Inservice education might be more useful to teachers if it focused on areas beyond initial, standardized placement and trained teachers in non-standardized assessment techniques, the use of recently developed technology such as computerized interactive assessment, and the applications of learning theory with its emphasis upon specific processes of learning.

Most Frequently Used Test

Teachers cited the TABE as the single most frequently used formal test, but these same teachers also rated formal testing as less useful to them than other methods of assessment. This suggests that further research might examine the strengths and weaknesses of the TABE. Cooter (1990), in a recent review of the TABE, states that its subtests do not address adult-oriented needs such as "reading to do" or "reading to learn" and that the content of its passages is of questionable relevance to its intended audience. Cooter also warns that some of the features of the 1987 revised TABE warrant scrutiny, such as its "criterion-referenced potential," its use as a GED predictor, and the generalizability of its norming group to participants in diverse ABE programs. The widespread use of the TABE is now documented, and it is only reasonable to assume that the TABE will continue to be a very popular test among ABE programs. It is crucial, therefore, that teachers and administrators fully understand the TABE's legitimate uses as well as its limitations.

Conclusion

Data concerning teachers' perceptions of the positive effects of testing and its negative results point to specific benefits and shortcomings of testing as it is currently practiced in ABE programs. Program practice data provide information concerning the various reasons ABE programs use formal tests, and it delineates specific testing policies and practices. Successful test policies and practices must build on communication between teachers, administrators, policy makers, measurement experts, test developers, and learning theorists. Divergent perceptions and expectations mark the field's developments to date; multi-disciplinary coordination will be a necessary component for building a cumulative, coherent, logical, and conceptually sound knowledge base upon which to base practice.

References

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Table 1

Item Means in Rank Order: Effectiveness of Formal Testing

Rank	Item	Item Mean	SD
1	6. For helping teachers begin instruction at the appropriate level for each student	2.11	1.16
2	11. For helping teachers identify student's strengths and weaknesses	1.74	1.33
3	9. For helping teachers select suitable materials for each student	1.63	1.34
4	12. For helping teachers plan instruction	1.54	1.44
5	2. For helping teachers determine if students can be served by ABE	1.54	1.66
6	1. For helping teachers monitor student progress	1.34	1.48
7	10. For helping students become aware of their learning needs	1.29	1.53
8	5. For helping teachers diagnose students' learning problems	1.04	1.78
9	3. For helping students develop reasonable expectations for achievement	.94	1.34
10	8. For helping administrators demonstrate program effectiveness	.65	1.53
11	7. For helping teachers predict how well students will perform academically	.50	1.76
12	4. For helping students formulate realistic career goals	.37	1.78

Notes.

1. The response scale ranged from -3 ("Ineffective") to +3 ("Effective").
2. All items used the full range of values.
3. *N* varies slightly due to missing values.

Table 2

Item Means in Rank Order: Problems Resulting From Formal Testing

Rank	Item	Item Mean	SD
1	14. Formal testing generates harmful anxiety in some students	1.81	.83
2	17. Formal testing discriminates against students with special learning needs	1.77	.99
3	15. Formal testing damages some students' self-esteem	1.63	.87
4	29. Formal testing discriminates against students who do not use standard English	1.55	.98
5	16. Formal testing discourages some students from participating in ABE	1.39	.98
6	13. Formal testing reduces motivation for some students	1.25	.84
7	24. Formal testing leads some teachers to ignore the way adult students use skills outside of class	1.17	1.00
8	21. Formal testing causes some teachers to neglect other indicators of student achievement	1.13	.96
9	23. Formal testing leads some teachers to restrict instruction to testable skills	1.13	.98
10	30. Formal testing leads some teachers to disregard students' personal learning goals	1.11	.94
11	20. Formal testing discriminates against minority students	1.02	.98

(cont.)

Table 2 (cont.)

Rank	Item	Item Mean	SD
12	18. Formal testing produces resentment among some students	.99	.89
13	28. Formal testing gives test developers too much influence over what is taught in ABE	.94	.99
14	26. Formal testing leads some teachers to use inappropriate elementary or secondary school methods	.85	.92
15	25. Formal testing leads some teachers to limit their efforts with students who obtain low scores	.83	.89
16	22. Formal testing wastes instructional time	.71	.88
17	27. Formal testing uses money that could be spent more productively	.63	.85
18	19. Formal testing leads to cheating among some students	.60	.74

Notes.

1. The response scale was as follows: 0 = "Not a Problem," 1 = "A Slight Problem," 2 = "A Moderate Problem," and 3 = "A Serious Problem."
2. N varies slightly due to missing values.